REMARKS

Claims 1, 3-6, 10, 12, 14-15, 25, 28-29, 33, 36, 38, 40, 42, 47, 50, 68, 76, 78, and 81-83 are now pending in the application. Claims 1, 29, 38, and 68 have been amended. Claims 2, 7-9, 11, 13, 16-24, 26-27, 30-32, 34-35, 37, 39, 41, 43-46, 48-49, 51-67, 69-75, 77 and 79-80 are cancelled. Support for the foregoing amendments can be found throughout the specification, claims and drawings as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claim 68 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Applicant has amended claim 68 to address the Examiner's rejection. It is clear that claim 68 is directed to a specific structure.

Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 29, 38, 40, 42, 47, 50, 68 and 76 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Clearly et al. (U.S. Pat. No. 6,457,823). This rejection is respectfully traversed.

Claim 29 has been amended to clarify that the first curing step is a partial-curing step.

Claims 29 and 38 have also been amended to clarify that the partial-curing step provides partially-cured ink with a layer adjacent the substrate having a viscosity greater than the viscosity of an exposed surface of the ink. That is, the ink closer to the substrate is more cured than the ink at the surface.

In contrast, Cleary fails to teach partial curing such that "a layer of ink adjacent the substrate has a viscosity greater than the viscosity of an exposed surface of the ink."

In fact, Cleary teaches the opposite of this claimed feature. As illustrated in Fig. 7B, which shows a single pass of the LEDs, only a small depth, d_2, of the ink is penetrated by radiation and cured. That is, in Cleary, the top layer of ink furthest from the substrate is more cured and hence more viscous than the layer of ink adjacent the substrate. Even after several passes of the LEDs, the ink is not fully penetrated by the radiation, d_3, and the ink adjacent the substrate is not cured or even increased in viscosity. The ink closest to the substrate is only cured during the final, full curing.

In view of the foregoing, Applicant submits that Cleary does not teach claims 29, 38, 40, 42, 47, 50, 68 and 76.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3-6, 12, 14-15, 25, 28 and 83 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sachs (U.S. Pat. No. 4,309,452) in view of Sawatsky (U.S. Pub. No. 2002/0064616).

Claims 10, 33 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sachs (U.S. Pat. No. 4,309,452) and Sawatsky (U.S. Pub. No. 2002/0064616), and further in view of Cleary et al. (U.S. Pat. No. 6,457,823).

Claim 81 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sachs (U.S. Pat. No. 4,309,452) and Sawatsky (U.S. Pub. No. 2002/0064616), and further in view of Troue (U.S. Pat. No. 4,485,123).

Claim 82 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sachs (U.S. Pat. No. 4,309,452), Sawatsky (U.S. Pub. No. 2002/0064616) and Troue (U.S. Pat. No. 4,485,123), and further in view of Matthews et al. (U.S. Pat. No. 4,313,969).

These rejections are respectfully traversed.

Claim 1 has been amended. Claim 1 is directed to a method for use with an inkjet device and requires that the inkjet device deposits discrete droplets of ink on the substrate in first and second passes, wherein the deposition of adjacent droplets of ink is separately controlled to permit mutually different adjacent droplets to be deposited on the substrate.

In contrast, Sachs at best discloses roll coating techniques and fails to disclose any of the above features set out in claim 1 in relation to an inkjet device.

Further, Applicant submits that the art cited by the Examiner is from two separate and distinct technical fields.

Sawatsky does disclose some techniques in the field of inkjet printing (Paragraph 23). In such techniques, dots of ink are laid down separately onto the substrate and the precision with which the dots of ink are placed is important to produce a high quality image (Paragraph 50). The droplets are substantially separate and, in many cases, are

placed alongside each other rather than on top of each other. Adjacent dots of ink may be different. fFor example they may be of different colors (Paragraphs 49 and 105). Therefore, in order to provide a high-quality printed image, a person of ordinary skill in the field of inkjet printing aims to keep the dots of ink substantially separate.

Even if the dots of ink are of the same color, it may be desirable to prevent the ink drops from flowing together as, in doing so, the ink droplets spread and produce a smeared effect, reducing detail in the printed image. Sawatsky emphasizes in Paragraphs 51 and 52 that inkjet printers are suitable for such high-quality, precise printing.

In contrast, Sachs is directed to techniques in the field of roll coating, spraying or dip coating (Column 3, Line 20). In fact, Sachs has an explicit teaching that, for the techniques to work, roll coating is "required for the second coating" (Column 3 Line 22). Such coating methods aim to provide a continuous coating layer over the whole surface of the object and to merge the different layers together as far as possible to provide continuity between the layers.

In summary, the techniques shown in Sawatsky and Sachs are from different fields and have different aims. One of ordinary skill working in the field of inkjet printing would not consider roll coating techniques to be relevant or helpful in this technology.

Further, Applicant submits that a person of ordinary skill would not combine Sachs and Sawatsky. A person of ordinary skill working in the field of inkjet printing would clearly start from known techniques in inkjet printing, such as those shown in Sawatsky. As stated above, the person of ordinary skill would not consider roll coating

techniques to be relevant or helpful since the aims of these techniques are opposed to inkjet printing aims of producing high-quality printing.

In particular, to produce a high-quality image using inkjet printing, the person of ordinary skill is trying to achieve the opposite of Sachs. As noted above, in Sachs, subsequent layers are intended to merge into each other. By contrast, in the claimed invention, the inkjet droplets are intended to stay substantially where they are printed and not to spread into adjacent drops.

Therefore, the person of ordinary skill would not add features from the roll coating disclosure of Sachs into an inkjet printing system.

There would be a lack of expectation of success since a roll coating technique would not provide the same high-precision desirable in an inkjet technique. In fact, the expectation of a person of ordinary skill would be that using techniques from roll coating would decrease the quality of an inkjet image.

It is further noted that Sawatsky teaches away from any partial curing. Instead, there is an explicit teaching in Paragraph 20 that the undercoat is formulated "such that, when cured, it accepts the adhesion of printing inks to its cured surface." That is, full curing of the undercoat is required to enable printing on the surface.

It is therefore clear that the article of Sawatsky is fully cured between coats. When it comes to printing of the decoration itself, Sawatsky clearly teaches in Paragraph 49-52 that no curing step is necessary between the sequence of colors to be printed to form the image. However, if curing is performed (for example as set out in Paragraph 45), full curing of each color is performed after each pass of the printhead.

In summary, Sachs and Sawatsky simply would not be combined by a person of ordinary skill in the art at least because: a person of ordinary skill in the art would not consider techniques from roll coating to be applicable to inkjet printing; there would be a lack of expectation of success in any such combination; and Sawatsky teaches away from partial curing of inks.

In view of the foregoing, Applicant submits that claims 1, 3-6, 10, 12, 14-15, 25, 28, 33, 36, and 81-83 define over the art cited by the Examiner.

Claim 78 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Clearly et al. (U.S. Pat. No. 6,457,823) in view of Codos (U.S. Pub. No. 2002/024544).

Claim 78 depends from claim 38 and, thus, defines over Clearly at least for reasons set forth above with respect to claim 38. Further, Applicant submits that Codos fails to cure the deficiencies of Clearly, as Codos appears silent about the distinguishing features that the ink closer to the substrate is more cured than the ink at the surface.

In view of the foregoing, Applicant submits that claim 78 defines over the art cited by the Examiner.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and

favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: December 8, 2010

By: /G. Gregory Schivley/
G. Gregory Schivley
Reg. No. 27,382

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GGS/PFD/tlp

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